Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	INVISTA S.à r.l.
Facility Name:	INVISTA S.à r.l.
Facility Location:	400 DuPont Boulevard Waynesboro, Virginia 22980
Registration Number:	80517
Permit Number:	VRO80517

October 15, 2001
Effective Date
January 16, 2002
Reopening Date
May 21, 2004
Administrative Amendment Date
January 27, 2006
Minor Modification Date
October 15, 2006
Expiration Date
R. Bradley Chewnng
Director, Department of Environmental Quality
January 26, 2006
Signature Date

Table of Contents, 2 pages
Permit Conditions, 51 pages
Source Testing Report Format

Table of Contents

I. Facility Information

Permittee
INVISTA S.à r.l.
400 DuPont Boulevard
Waynesboro, Virginia 22980

Responsible Official
Mr. Michael W. Laczynski
Plant Manager

Facility
INVISTA S.à r.l.
400 DuPont Boulevard
Waynesboro, Virginia 22980

Contact Person
Mr. Ronald B. Shifflett
Sr. Environmental Specialist
540-949-2844

Plant Identification Number: 51-820-0009

Facility Description:

NAICS Code	Manufacturing Description
325211	Plastic Materials, Synthetic Resins, and Nonvulcanizable Elastomers
325222	Manmade Organic Fibers, Except Cellulosic

Arteva Specialities S.à r.l. (Société à responsabilité limitée) (INVISTA S.à r.l.) owns and operates a synthetic fiber production facility located in Waynesboro, Virginia. The facility consists of 4 main areas:

The Powerhouse

There are currently three boilers installed in the powerhouse which have predominantly used coal, with minor modifications and fuel use upgrades prior to 1972. Boiler #1 (2-205(B#1)) is rated at 196 MMBtu/hr and was installed in 1967, Boiler #2 (2-205(B#2)) is rated at 209 MMBtu/hr and was installed in 1966, and Boiler #3 (2-205(B#3)) is rated at 209 MMBtu/hr and was installed in 1965.

There are also three Dowtherm® vaporizers which provide heat for the nylon fiber production operations at the facility. Vaporizers #1 and #2 (2-205(V#1) and 2-205(V#2)) were installed in 1977 and are mainly fueled by natural gas and residual oil, however they have the

design capacity to use distillate oil as well. Vaporizer #3 (2-205(V#3)) was installed in 1997 and is fueled by natural gas and distillate oil. Vaporizers #1 and #2 are rated at 43 MMBtu/hr maximum heat input capacity (30 MMBtu/hr. heat output), and Vaporizer #3 is rated at 22 MMBtu/hr maximum heat input capacity (16 MMBtu/hr heat output).

The Coal Handling System

Coal is transported to the coal handling facility mostly via railcar, although a small amount is delivered by trucks. Coal is fed through a shuttle-type vibrating feeder and transferred by a belt conveyor to a holding hopper. This hopper chutes coal to either the coal storage pile or a crusher, which drops coal to a short belt, then a long belt, and finally to the top belt conveyors to the silos. A reclaim hopper and chute catches any coal that drops off belts at the main transfer points, which are enclosed. The top belt feeds 4 silos serving the boilers. Silos 1A and 1B serve Boiler #1, with a capacity of 150 tons each. Silos #2 and #3 serve Boiler #2 and Boiler #3 respectively, each with a capacity of 190 tons.

The Lycra® Production Facility

The Lycra® production facility, which produces INVISTA's brand of spandex fiber, is comprised of three basic areas: polymer processing, spinning, and solvent recovery.

The Nylon Fiber Production Facility

The Nylon fiber production facility, also referred to as the BCF nylon facility, was built between 1975 and 1978. Nylon flake production capabilities were added in 1997. The facility produces nylon fiber and nylon flake. The fiber is used in the manufacturing of carpets and the flake is used in the production of automobile safety air bags.

II. Emission Units

Equipment to be operated consists of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Process: Powerhouse							
2-205 (B#1)	2-205 BH	Combustion Engineering, Inc., Model # VU-40S Boiler #20543 (1967) (Coal)	196 Million BTU/HR	Joy Manufacturing Co., Western Precipitation Division (Therm-O- Flex Filter)	2-205 H	PM PM-10 Pb HAP Solids	11/29/01 Amended 07/25/05
		Combustion Engineering, Inc., Model # VU-40S Boiler #20543 (1967) (Residual Oil)					
		Combustion Engineering, Inc., Model # VU-40S Boiler #20543 (1967) (Distillate Oil)					
		Combustion Engineering, Inc., Model # VU-40S Boiler #20543 (1967) (Natural Gas) (Igniters installed in 1994) (Natural Gas)	20 Million BTU/HR				

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
2-205 (B #2)	2-205 BH	Combustion Engineering, Inc. Model # VU-40S Boiler #20185 (1966) (Coal)	209 Million BTU/HR	Joy Manufacturing Co., Western Precipitation Division (Therm-O- Flex Filter)	2-205 H	PM PM-10 Pb HAP Solids	11/29/01 Amended 07/25/05
		Combustion Engineering, Inc. Model # VU-40S Boiler #20185 (1966) (Residual Oil)					
		Combustion Engineering, Inc. Model # VU-40S Boiler #20185 (1966) (Distillate Oil)					
		Combustion Engineering, Inc. Model # VU-40S Boiler #20185 (1966) (Natural Gas) (Igniters installed in 1994) (Natural Gas)	20 Million BTU/HR				
2-205 (B #3)	2-205 BH	Combustion Engineering, Inc. Model # VU-40S Boiler #19955 (1965) (Coal)	209 Million BTU/HR	Joy Manufacturing Co., Western Precipitation Division (Therm-O- Flex Filter)	2-205 H	PM PM-10 Pb HAP Solids	11/29/01 Amended 07/25/05
		Combustion Engineering, Inc. Model # VU-40S Boiler #19955 (1965) (Residual Oil)					
		Combustion Engineering, Inc. Model # VU-40S Boiler #19955 (1965) (Distillate Oil)					
		Combustion Engineering, Inc. Model # VU-40S Boiler #19955 (Igniters installed in 1994) (Natural Gas)	20 Million BTU/HR				

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
2-205 (V #1)	2-205 BH	Riley Union (Riley-stoker) Dow Vaporizer #1 Type MH (April, 1978) (Natural Gas) Riley Union (Riley-stoker) Dow Vaporizer #1 Type MH (April, 1978) (Distillate Oil) Riley Union (Riley-stoker) Dow Vaporizer #1 Type MH (April, 1978) (Residual Oil)	43 Million BTU/HR	-	-	-	11/29/01 Amended 07/25/05
2-205 (V #2)	2-205 BH	Riley Union (Riley-stoker) Dow Vaporizer #2 Type MH (April, 1978) (Natural Gas) Riley Union (Riley-stoker) Dow Vaporizer #2 Type MH (April, 1978) (Distillate Oil) Riley Union (Riley-stoker) Dow Vaporizer #2 Type MH (April, 1978) (Residual Oil)	43 Million BTU/HR	-	-	-	11/29/01 Amended 07/25/05
2-205 (V #3)	2-205 BH	Struthers Wells dowtherm vaporizer #3 (1997) (Natural Gas) Struthers Wells dowtherm vaporizer #3 (1997) (Distillate Oil)	22 Million BTU/HR	-	-	-	11/29/01 Amended 07/25/05
Process: Coal Handling System							
CH-01 CH-20 CH-23 CH-24 CH-03 CH-19 CH-P CH-02	CH-01 CH-20 CH-23 CH-24 CH-03 CH-19 CH-P CH-02	Coal Handling Equipment	100 tons per hour	-	-	-	-

CH-06 CH-07 CH-08 CH-09(1A) CH-09(1B) CH-09(2) CH-09(3)	CH-06 CH-07 CH-08 CH-09(1A) CH-09(1B) CH-09(2) CH-09(3)						
Silo 1A	-	Silo for Boiler #1	150 tons	-	-	-	-
Silo 1B	-	Silo for Boiler #1	150 tons	-	-	-	-
Silo 2	-	Silo for Boiler #2	190 tons	-	-	-	-
Silo 3	-	Silo for Boiler #3	190 tons	-	-	-	-
Process: Nylon Fiber Production Facility							
1-5 1-6 1-20 1-25 1-26 1-27	1-5 1-6 1-20 1-25 1-26 1-27	Polymer and/or Flake Production Equipment	-	Scrubber (DuPont Design) (1979)	1-20	VOC	-
5-25-5-30	5-25 5-26 5-27 5-28 5-29 5-30	Nylon Spinning Equipment (1978)	-	-	-	-	11/29/01 Amended 07/25/05
5-32-5-35	5-32 5-33 5-34 5-35	Pre-Polymerizers (#1, #2, #3, #4) (1978) CP Area	-	-	-	-	11/29/01 Amended 07/25/05
5-36-5-39	5-36 5-37 5-38 5-39	Pre-Evaporators (#1, #2, #3, #4) (1978) CP Area	-	-	-	-	11/29/01 Amended 07/25/05
5-40-5-42	5-40 5-41 5-42	String-Up Exhausts (#1, #2, #3) (1978)	-	-	-	-	11/29/01 Amended 07/25/05

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Process: Lycra® Production Facility							
6-477	6-477	Lycra® Polymerization Process (1983)	-	-	-	-	11/29/01 Amended 07/25/05
6-480	6-480						
6-481	6-481						
6-488	6-488						
7-7	7-7						
7-76	7-76						
7-84	7-84						
7-250	7-250						
7-278	7-278						
7-349	7-349						
7-564	7-564						
7-604	7-604						
7-615	7-615						
7-633	7-633						
7-634	7-634						
7-653	7-653						

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
6-473	6-473	Lycra® Spinning Process (1983)	-	-	-	-	11/29/01 Amended 07/25/05
6-474	6-474						
6-475	6-475						
6-476	6-476						
6-478	6-478						
6-479	6-479						
6-482	6-482						
6-483	6-483						
6-484	6-484						
7-29	7-29						
7-66	7-66						
7-67	7-67						
7-68	7-68						
7-83	7-83						
7-247	7-247						
7-291	7-291						
7-292	7-292						
7-303	7-303						
7-304	7-304						
7-309	7-309						
7-348	7-348						
7-649	7-649						
7-652	7-652						
7-654	7-654						

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
8-42	8-42	Lycra® Solvent Recovery Process (1983)	-	-	-	-	11/29/01 Amended 07/25/05
8-43	8-43						
8-44	8-44						
8-48	8-48						
8-51	8-51						
8-52	8-52						
8-53	8-53						
8-59	8-59						
8-75	8-75						
8-76	8-76						
8-78	8-78						
8-79	8-79						
8-80	8-80						
8-81	8-81						
8-86	8-86						
8-87	8-87						
8-88	8-88						
8-89	8-89						
8-194	8-194						
8-210	8-210						

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

III. Powerhouse

A. Limitations

1. The Dowtherm® vaporizer (Ref. 2-205(V#3)) shall consume no more than 156 x 10^6 cubic feet of natural gas per year and 1,182,600 gallons of distillate oil per year, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 19 of 11/29/01 Permit as amended 07/25/05)

2. Particulate emissions from the boilers (Ref. 2-205(B#1), 2-205(B#2), and 2-205(B#3)) shall be controlled by a baghouse (2-205 H) when firing coal. The baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-110)

3. The approved fuels for the Dowtherm® vaporizer (Ref. 2-205(V#3)) are distillate oil and natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 20 of 11/29/01 Permit as amended 07/25/05)

4. The approved fuels for the Dowtherm® vaporizers (Ref. 2-205(V#1) and 2-205(V#2)) are distillate oil, residual oil and natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 21 of 11/29/01 Permit as amended 07/25/05)

5. The approved fuels for the boilers (Ref. 2-205(B#1), 2-205(B#2), and 2-205(B#3)) are distillate oil, residual oil and coal. The approved fuel for the boiler igniters is natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 22 of 11/29/01 Permit as amended 07/25/05)

6. The distillate oil to be burned in the Dowtherm® vaporizer (Ref. 2-205(V#3)) shall meet the specifications below:

   DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:

   Maximum sulfur content per shipment: 0.3%

   (9 VAC 5-80-110, 9 VAC 5-50-410, 40 CFR 60.42c and Condition 23 of 11/29/01 Permit as amended 07/25/05)

7. The distillate oil, residual oil and coal to be burned in the boilers (Ref. 2-205(B#1), 2-205(B#2), and 2-205(B#3)), and Dowtherm® vaporizers (Ref. 2-205(V#1) and 2-205(V#2)) shall meet the specifications below:

   COAL:
   Maximum sulfur content per shipment: 1.5%

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:
Maximum sulfur content per shipment: 0.5%

RESIDUAL OIL which meets the ASTM D396 specifications for numbers 4, 5, or 6 fuel oil:
Maximum sulfur content per shipment: 2.0%

(9 VAC 5-80-110 and Condition 24 of 11/29/01 Permit as amended 07/25/05)

8. Emissions from the powerhouse stack (Stack Ref. 2-205) shall not exceed the limits specified below:

Sulfur Dioxide	788.0 lbs/hr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110, 9 VAC 5-40-930 and Condition 28 of 11/29/01 Permit as amended 07/25/05)

9. Emissions from the Dowtherm® vaporizer (Ref. 2-205(V#3)) shall not exceed the limits specified below:

Particulate Matter	0.53 lbs/hr	1.95 tons/yr
PM-10	0.37 lbs/hr	1.36 tons/yr
Sulfur Dioxide	6.79 lbs/hr	25.19 tons/yr
Nitrogen Oxides (as NO_2)	3.19 lbs/hr	11.83 tons/yr
Carbon Monoxide	1.81 lbs/hr	6.55 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 29 of 11/29/01 Permit as amended 07/25/05)

10. Particulate matter emissions for the boilers and Dowtherm® vaporizers shall not exceed the limits specified below:

Boiler #1 (Ref. 2-205(B#1))	36.9 lbs/hr
Boiler #2 (Ref. 2-205(B#2))	39.3 lbs/hr
Boiler #3 (Ref. 2-205(B#3))	39.3 lbs/hr
Vaporizer #1 (Ref. 2-205(V#1))	8.1 lbs/hr

Vaporizer #2 (Ref. 2-205(V#2)) 8.1 lbs/hr

(9 VAC 5-80-110, 9 VAC 5-40-900 and 9 VAC 5-40-910)

11. Visible emissions from the powerhouse stack (Stack Ref. 2-205) shall not exceed 20% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110, 9 VAC 5-50-80, 9 VAC 5-40-940 and Condition 30 of 11/29/01 Permit as amended 07/25/05)

12. Boiler and vaporizer emissions shall be controlled by proper operation and maintenance. Boiler and vaporizer operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization with the manufacturer's operating instructions, at minimum.
(9 VAC 5-80-110 and Condition 27 of 11/29/01 Permit as amended 07/25/05)

13. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-80-110 and Condition 38 of 11/29/01 Permit as amended 07/25/05)

B. Monitoring and Recordkeeping

1. The baghouse (2-205 H) shall be equipped with a device to continuously measure the differential pressure drop across the baghouse. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer’s written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the baghouse is operating.
(9 VAC 5-80-110)

2. The permittee shall conduct a weekly inspection of the baghouse (2-205 H). The inspection shall include an observation of the pressure drop across the baghouse. If during the inspection, the pressure drop is not within the manufacturer's recommended range, timely corrective action shall be taken such that the baghouse resumes proper operation.

   (9 VAC 5-80-110)

3. The permittee shall conduct a weekly inspection of the powerhouse stack (Stack Ref. 2-205) to determine the presence of visible emissions. If during the inspection, visible emissions are observed, an EPA Method 9 (40 CFR Part 60, Appendix A) visible emissions evaluation (VEE) shall be conducted. The VEE shall be conducted for a minimum period of six (6) minutes. If any of the observations exceed the applicable opacity limit, the observation period shall continue until sixty (60) minutes of observations have been completed.

   (9 VAC 5-80-110)

4. The permittee shall determine compliance with the hourly sulfur dioxide limit in Condition III.A.8 as follows:

   a. The permittee shall calculate the total stack sulfur dioxide emission rate each hour as follows:

$$SO_{2total} = SO_{2boiler} + SO_{2vaporizer}$$

…..…….Equation 1

   Where:

   SO_{2total} = Total sulfur dioxide emission rate from the powerhouse stack (2-205) in pounds per hour.

   $SO_{2boiler}$ = Total sulfur dioxide emission rate from all boilers in pounds per hour using calculation methods or CEM data.

   $SO_{2vaporizer}$ = Total sulfur dioxide emission rate from all vaporizers in pounds per hour.

   b. The sulfur dioxide emission factor resulting from burning of bituminous coal shall be calculated as follows:

$$BC_i = 601.2 * (B_s/450)((C_s \div 1.062)$$

…..……Equation 2

   Where:

   BC_i = SO_2 emission rate in pounds per hour from each boiler (i) burning coal.

   B_s = the hourly average total steam flow from coal-firing, in thousand pounds per hour (Mpph), for each boiler (i).

C_s = the weighted average coal equivalent SO_2 content in lbs SO_2/MMBtu.

c. The total sulfur dioxide emission rate in pounds per hour from all boilers shall be calculated as follows:

$$SO_{2boiler} = \sum_{i=1}^{n} BC_i + \sum_{i=1}^{n} BD_i + \sum_{i=1}^{n} BR_i$$

.....Equation 3

Where:

$SO_{2boiler}$ = Total sulfur dioxide emission rate in pounds per hour from all boilers.

BC_i = SO_2 emission rate in pounds per hour from each boiler (i) burning coal using DEQ-approved pollutant specific emission factors.

BD_i = SO_2 emission rate in pounds per hour from each boiler (i) burning distillate oil using DEQ-approved pollutant specific emission factors.

BR_i = SO_2 emission rate in pounds per hour from each boiler (i) burning residual oil using DEQ-approved pollutant specific emission factors.

d. The determination of the hourly average total steam flow from coal-firing (Mpph steam) shall be performed according to the following methodology:

(1) For each boiler (i), determine the hourly average input of natural gas in thousand standard cubic feet per hour (Mscfh) and distillate and residual oil in gallons per minute (gpm).

(2) For each boiler (i), determine the hourly average steam flow output in Mpph and the hourly average boiler steam drum pressure in psig.

(3) Classify each boiler as being “on-line” or “off-line”.

(a) An “on-line” boiler is defined as a boiler whose steam flow output is greater than 30 thousand pounds of steam per hour (Mpph) and whose steam drum pressure is greater than 300 pounds per square inch gauge (psig).

(b) If one or both of these conditions is not met, the boiler is considered to be “off-line”.

(c) Coal shall not be fired to any boiler prior to the boiler being “on-line”.

(4) For each on-line boiler (i), determine the equivalent steam output from natural gas each hour using the following equation:

$$STGAS_i = BG_i * 0.804$$

……..……..Equation 4

Where:

$STGAS_i$ = Steam flow output in Mpph from each on-line boiler (i) resulting from burning natural gas.

BG_i = Hourly average natural gas flow rate to each on-line boiler (i) in thousand standard cubic feet per hour (Mscfh).

0.804 = Conversion factor including natural gas higher heating value, steam enthalpy rise, and boiler efficiency.

(5) For each on-line boiler (i), determine the equivalent steam output from residual and distillate oil each hour using the following equation:

$$STOIL_i = BO_i * C * \left(BTU_a \div BTU_t\right)$$

…….……Equation 5

Where:

$STOIL_i$ = Steam flow output from each on-line boiler (i), in Mpph, resulting from burning fuel oil.

BO_i = Hourly average oil flow rate of fuel oil to each on-line boiler (i) in gallons per minute.

C = Steam enthalpy rise and boiler efficiency constant, including oil higher heating value shown in Table 1, steam enthalpy rise, conversion from minutes (gpm) to hours (hourly steam flow), boiler efficiency, and division by 1000 for thousands of pounds per hour (pph).

BTU_a = The actual higher heating value of the fuel oil in Btu per gallon.

BTU_t = The theoretical higher heating value of the fuel oil in Btu per gallon.

Table 1. Fuel Btu Values and Boiler Constants

Fuel Type	Theoretical Higher Heating Value (BTU_t)	Steam Enthalpy & Boiler Efficiency Constant (C)
No. 1 Fuel Oil	134,000	6.357
No. 2 Fuel Oil	138,000	6.547
No. 4 Fuel Oil	144,000	6.816
No. 5 Fuel Oil	146,000	6.910
No. 6 Fuel Oil	150,000	7.100

(6) For each on-line boiler (i), determine the hourly average steam flow from coal-firing (Mpph steam) using the following equation:

$$STCOAL_i = STEAM_i - STGAS_i - STOIL_i$$

…….Equation 6

Where:

$STCOAL_i$ = Steam flow output from each on-line boiler (i), in Mpph, resulting from burning coal.

$STEAM_i$ = Total steam flow output from each on-line boiler (i) in Mpph.

$STGAS_i$ = Steam flow output from each on-line boiler (i), in Mpph, resulting from burning natural gas.

$STOIL_i$ = Steam flow output from each on-line boiler (i), in Mpph, resulting from burning oil.

e. The total sulfur dioxide emission rate in pounds per hour from all vaporizers shall be calculated each hour as follows:

$$SO_{2vaporizer} = \sum_{i=1}^{n} VO_i$$

..……..…..Equation 7

Where:

$SO_{2vaporizer}$ = Total sulfur dioxide emission rate from all vaporizers in pounds per hour.

VO_i = SO_2 emission rate from each vaporizer (i) burning fuel oil, in pounds per hour, using DEQ-approved pollutant specific emission factors.

(9 VAC 5-80-110 and Attachment A of 11/29/01 Permit as amended 07/25/05)

5. Based on the total hourly sulfur dioxide emission rate from all boilers *($SO_{2boiler}$)* as determined by Equation 3, monitoring and recordkeeping shall be performed using the following methodology:

   a. Total Boiler SO_2 Emission Rate ($SO_{2boiler}$) Less Than 450.9 lbs/hr

      (1) A coal quality certification sheet shall be provided by the coal supplier for each shipment, identifying each coal car or truck included in that shipment. The certification sheet is to be provided to the plant for verification prior to unloading.

      (2) Coal is to be sampled and analyzed by the supplier using appropriate ASTM methods as defined by EPA Method 19 (reference 40 CFR 60, Appendix A). Data shall include percent sulfur content and higher heating value on an as-received and dry basis, and the equivalent SO_2 content as lbs/MMBtu.

      (3) Each coal car or truck shall be identified, verified versus the quality certification sheet, and documented by the plant when it is unloaded, along with the location to which the coal was delivered (i.e., to the coal storage pile or to the raw coal silos).

      (4) The facility shall conduct one monthly random audit sample and analysis of coal received for comparison to the quality certification from that sampled by the coal supplier. The coal is to be analyzed by the facility using appropriate ASTM methods as defined by EPA Method 19 (reference 40 CFR 60, Appendix A). Sample data shall include the percent sulfur content, higher heating value and the equivalent SO_2 content as lb/MMBtu. Details of the sampling and analysis shall be arranged with the Director, Valley Region. The results shall be recorded and retained for recordkeeping purposes.

      (5) If the monthly random audit sample sulfur content result (as lbs of SO_2/MMBtu on an as-fired basis) as determined by III.B.5.a.(4) exceeds the supplier's certification by 20% or greater, contact shall be made with the supplier to ensure that the proper quality control procedures are being followed. A second spot sample shall be taken and analyzed for sulfur content. If a result of 20% or greater is confirmed by the second sample, the facility shall generate a composite coal sample by taking daily samples upstream of all operating raw coal feeders. The composite sample shall be quartered on a monthly basis to obtain a representative sample. Coal is to be analyzed by the facility using appropriate ASTM methods as defined by EPA Method 19 (reference 40 CFR 60, Appendix A). Details of the sampling and analysis shall be arranged with the Director, Valley Region. The facility shall use results of the composite coal sampling and analysis for its SO_2 emission calculations until the composite sample compares within 20% of the supplier certification. Composite coal sampling may be discontinued once this occurs.

   b. Total Boiler SO_2 Emission Rate ($SO_{2boiler}$) Between 450.9 lbs/hr and 541.1 lbs/hr for More Than Two Individual Hours in a Week

(1) If no Dowtherm® vaporizer ((Ref. 2-205(V#1), (Ref. 2-205(V#2), (Ref. 2-205(V#3)) is firing distillate or residual oil, no change to the compliance methodology in III.B.5.a. above is required.

(2) If any Dowtherm® vaporizer ((Ref. 2-205(V#1), (Ref. 2-205(V#2), (Ref. 2-205(V#3)) is firing distillate or residual oil, the following coal quality certification step in addition to the requirements in III.B.5.a. above is required:

The facility shall generate a composite coal sample by taking daily samples upstream of all operating raw coal feeders. The composite sample shall be quartered on a monthly basis to obtain a representative sample. Coal is to be analyzed by the facility using appropriate ASTM methods as defined by EPA Method 19 (reference 40 CFR 60, Appendix A). Details of the sampling and analysis shall be arranged with the Director, Valley Region. The facility shall use results of the composite coal sampling and analysis for its SO_2 emission calculations.

(3) If total SO_2 emissions from the boilers as calculated above do not exceed 450.9 lbs/hr for a continuous 30-day period following the upward excursion, coal quality certification shall fall back to the steps contained in III.B.5.a.

c. Total Boiler SO_2 Emission Rate ($SO_{2boiler}$) Greater Than 541.1 lbs/hr for More Than Two Individual Hours in a Week

(1) If the total powerhouse stack SO_2 emissions (SO_{2total}) as determined by Equation 1 are less than 591.0 pounds per hour, proceed with the monitoring requirements contained in III.B.5.b.

(2) If the total powerhouse stack SO_2 emissions (SO_{2total}) are equal to or greater than 591.0 pounds per hour for any single hour, the permittee shall proceed with the monitoring requirements in III.B.5.b and initiate a project for timely installation of a continuous emission monitor (CEM). The project shall include, but is not limited to, the following:

(a) The CEM shall be installed within one calendar year of the date which the total powerhouse stack SO_2 emissions (SO_{2total}) are equal to or greater than 591.0 pounds per hour for any single hour.

(b) An initial CEM performance evaluation shall be conducted as set forth in Condition III.C.2.

(c) An initial notification shall be submitted as set forth in Condition III.D.2.

(d) The CEM shall be installed to measure and record the concentration of SO_2 emitted from the combined boiler breaching prior to powerhouse stack (2-205) entry. The monitor shall meet the certification, operation, and maintenance requirements of 40 CFR 60.13 and the quality assurance

requirements of 40 CFR, Part 60, Appendix F, or a DEQ-approved equivalent method.

(e) All continuous monitoring required by this permit shall meet minimum data availability of greater than or equal to seventy five percent (75%) of the operating hours in at least 22 out of 30 boiler operating days. The monitoring shall meet the certification, operation, and maintenance requirements of 40 CFR 60.13 and the quality assurance requirements of 40 CFR, Part 60, Appendix F, or a DEQ-approved equivalent method.

(f) The continuous monitoring data generated by the CEM shall be used to determine compliance with the emission limitation in Condition III.A.8. The data shall be kept on file for the most recent five (5) year period made available to the DEQ upon request.

(g) Additional details of the CEM installation shall be arranged with the Director, Valley Region.

(h) Upon DEQ approval of the initial CEM performance evaluation as set forth in Condition III.C.2, SO_2 sampling, analysis, and calculations, as required under Conditions III.B.4.b, III.B.4.c, III.B.4.d, III.B.5.a, III.B.5.b and III.B.5.c.(1) shall be discontinued.

(9 VAC 5-80-110 and Attachment A of 11/29/01 Permit as amended 07/25/05)

6. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil to be burned in the Dowtherm® vaporizer (Ref. 2-205(V#3)). Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the distillate oil was received;

   c. The volume of distillate oil delivered in the shipment;

   d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil;

   e. The sulfur content of the distillate oil;

   f. The method used to determine the sulfur content of distillate oil; and

   g. The higher heating value of the distillate oil.

   (9 VAC 5-80-110, 9 VAC 5-50-410, 40 CFR 60.48c and Condition 25 of 11/29/01 Permit as amended 07/25/05)

7. The permittee shall obtain a certification from the fuel supplier with each shipment of coal, distillate oil and residual oil to be burned in the boilers (Ref. 2-205(B#1), 2-205(B#2), and 2-205(B#3)), and Dowtherm® vaporizers (Ref. 2-205(V#1) and 2-205(V#2)). Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the distillate and residual oil was received;

   c. The date on which the coal was shipped;

   d. The volume of distillate and residual oil delivered in the shipment;

   e. The weight of coal delivered in the shipment;

   f. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil;

   g. A statement that the residual oil complies with the American Society for Testing and Materials specifications for numbers 4, 5, or 6 fuel oil;

   h. The sulfur content of the coal, distillate and residual oil;

   i. The method used to determine the sulfur content of coal, distillate and residual oil; and

   j. The higher heating value of the coal, distillate and residual oil.

   (9 VAC 5-80-110 and Condition 26 of 11/29/01 Permit as amended 07/25/05)

8. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

   a. *Dowtherm® Vaporizer (Ref. 2-205(V#3))*

      (1) Daily, monthly and annual throughput of natural gas (in million cubic feet) and distillate oil (in gallons). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

      (2) Hours of operation, calculated monthly as the sum of each of each consecutive 12-month period.

      (3) Average hourly particulate matter, PM-10, sulfur dioxide, nitrogen oxides (as NO_2) and carbon monoxide emission calculations (in pounds per hour), calculated monthly using calculation methods approved by the Director, Valley Region.

(4) Annual particulate matter, PM-10, sulfur dioxide, nitrogen oxides (as NO_2) and carbon monoxide emission calculations, calculated monthly as the sum of each consecutive 12-month period, using calculation methods approved by the Director, Valley Region.

(5) All fuel supplier certifications and fuel quality reports.

b. *Powerhouse Stack (Stack Ref. 2-205)*

(1) Hourly sulfur dioxide emission calculations (in pounds per hour) and supporting documentation, using the calculation methodology, monitoring and recordkeeping contained in Conditions III.B.4 and III.B.5.

(2) Results of all stack tests and visible emission evaluations.

(3) All fuel supplier certifications and fuel quality reports for the boilers (Ref. 2-205(B#1), 2-205(B#2), and 2-205(B#3)) and Dowtherm® vaporizers (Ref. 2-205(V#1), Ref. 2-205(V#2).

(4) Records of the required boiler and Dowtherm® vaporizer operator training including a statement of time, place and nature of training provided.

c. A log of weekly baghouse inspection results including:

(1) The date, time, and name of person performing each inspection;

(2) The pressure drop across the baghouse; and

(3) Any maintenance or repairs performed as a result of these inspections.

d. A log of weekly powerhouse stack inspection results including:

(1) The date, time, and name of person performing each inspection;

(2) Whether or not there were visible emissions; and

(3) Any maintenance or repairs performed as a result of these inspections.

e. The results of all VEEs performed on the powerhouse stack (Stack Ref. 2-205) as required in Condition III.B.3.

f. CEM data as required by Condition III.B.5.c.(2).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 32 of 11/29/01 Permit as amended 07/25/05)

9. The permittee shall maintain records of the required training for the boiler and vaporizer operators including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-80-110 and Condition 27 of 11/29/01 Permit as amended 07/25/05)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-40-30, 9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 18 of 11/29/01 Permit as amended 07/25/05)

2. A performance evaluation for the CEM shall be conducted within sixty (60) days after CEM installation. Two (2) copies of the performance evaluation report shall be submitted to the Director, Valley Region, within forty-five (45) days of the evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
(9 VAC 5-80-110)

3. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
NO_x	EPA Method 7 or 7e
SO_2	EPA Method 6, 6a or 6c
Coal Sulfur Content	Method 19
CO	EPA Method 10
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

D. Reporting

1. The permittee shall submit fuel quality reports to the Director, Valley Region, within 30 days after the end of each semi-annual period ending June 30 and December 31. If no shipments of distillate oil were received during the semi-annual period, the semi-annual report shall consist of the dates included in the semi-annual period and a statement that no oil was received during the semi-annual period. If distillate oil was received during the semi-annual period, the report shall include:

a. Dates included in the semi-annual period;

b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the semi-annual period or a semi-annual summary from each fuel supplier that includes the information specified in Condition III.B.6 for each shipment of distillate oil to be burned in the Dowtherm® vaporizer (Ref. 2-205(V#3)); and

c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received for the Dowtherm® vaporizer (Ref. 2-205(V#3)).

One copy of the semi-annual report shall be submitted to:

Associate Director
Office of Air Enforcement (3AP10)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-50-50, 9 VAC 5-50-410, 40 CFR 60.48c and Condition 33 of 11/29/01 Permit as amended 07/25/05)

2. The permittee shall furnish written notification to the Director, Valley Region, of the anticipated date of the CEM performance evaluation postmarked not less than 30 days prior to such date. A copy of the written notification is to be sent to:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 and 9 VAC 5-50-50)

IV. Coal Handling System

A. Limitations

1. Particulate emissions from the coal handling equipment operations shall not exceed the process weight limit as determined by the following equation:

$$E = 55.0P^{0.11}-40$$

Where:

E = emission rate in lbs/hr
P = process weight rate in tons/hr

(9 VAC 5-80-110 and 9 VAC 5-40-260)

2. Fugitive dust emission controls for the coal handling equipment operations shall include the following, or equivalent, as a minimum:

   a. Dust from material handling, screens, load-outs and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ).

   b. All material being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.

   c. Dust from haul roads and traffic areas shall be controlled by application of asphalt, water, suitable chemicals or equivalent methods approved by the DEQ.

   d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt, product or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

   (9 VAC 5-80-110 and 9 VAC 5-40-90)

3. Visible fugitive emissions from the coal handling equipment operations shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity. (9 VAC 5-80-110 and 9 VAC 5-40-80)

4. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 38 of 11/29/01 Permit as amended 07/25/05)

B. Monitoring and Recordkeeping

1. The permittee shall perform the following daily inspection and maintenance activities for coal handling equipment operations:

   a. The permittee shall inspect and maintain daily the fugitive dust emissions control system used to control fugitive emissions from coal handling activities;

   b. The permittee shall perform a daily visual survey of the coal handling activities for any sources of excessive fugitive emissions. For the purpose of this survey, excessive emissions are considered to be any visible emissions that leave the plant site boundaries. The person conducting this survey does not have to be Method 9 certified. However, the individual should be familiar with the procedures of Method 9 including using the proper location to observe visible emissions. If sources of excess fugitive emissions are identified during the survey, the permittee shall use water or a suitable chemical treatment to minimize the fugitive emissions. If water is used to control the fugitive dust emissions, the permittee shall take care not to create a water quality problem from surface water run-off.

   (9 VAC 5-80-110)

2. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

   a. The pollutant-specific emission factors and equations used to demonstrate compliance with Condition IV.A.1.

   b. Inspection records as required by Conditions IV.B.1.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

C. Testing

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

V. Lycra® Production Facility

The following requirements are derived from the minor NSR permit dated 11/29/01 as amended 07/25/05. As used in Section V, "Lycra® production facility" includes all emission units indicated in Section II of this permit under the Lycra® production facility heading.

A. Limitations

1. Volatile organic compound (VOC) emissions from the Lycra® (Classic and NAX) spinning machines shall be controlled by brine-cooled condensers. The control equipment shall be provided with adequate access for inspection and shall be maintained by the permittee such that it is in proper working order at all times. (9 VAC 5-80-110 and Condition 3 of 11/29/01 Permit as amended 07/25/05)

2. Emissions from the Lycra® production facility shall not exceed the limits specified below:

Volatile Organic Compounds	37.6 lbs/hr	164.7 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 5 of 11/29/01 Permit as amended 07/25/05)

3. Visible emissions from each Lycra® production facility exhaust shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-40-80, 9 VAC 5-50-80 and 9 VAC 5-80-110)

4. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 38 of 11/29/01 Permit as amended 07/25/05)

B. Monitoring

1. Each brine-cooled condenser shall be equipped with a device to continuously measure the outlet gas temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when each brine-cooled condenser is operating. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.

   (9 VAC 5-80-110 and Condition 3 of the 11/29/01 Permit as amended 07/25/05)

2. The permittee shall conduct a daily inspection of each brine-cooled condenser. The inspection shall include the following:

   a. The date, time and name of the person performing each inspection;

   b. The results of each inspection, including an observation of the outlet gas temperature; and

   c. The maintenance performed, if required.

   If during the inspection, the outlet gas temperature is not within the manufacturer's recommended range, timely corrective action shall be taken such that the brine-cooled condenser resumes operation at the proper temperature.

   (9 VAC 5-80-110)

3. The permittee shall conduct visible emissions inspections on Lycra® production facility exhausts 6-473 through 6-484, 6-488, 7-7, 7-29, 7-66 through 7-68, 7-76, 7-83, 7-84, 7-247, 7-250, 7-278, 7-291, 7-292, 7-303, 7-304, 7-309, 7-348, 7-349, 7-564, 7-604, 7-615, 7-633, 7-634, 7-649, and 7-652 through 7-654 in accordance with the following procedures and frequencies:

   a. At a minimum of once per week, the permittee shall determine the presence of visible emissions. If during the inspection visible emissions are observed from a stack(s), a visible emissions evaluation (VEE) shall be conducted for the stack(s) in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed twenty percent (20%), the VEE shall be conducted for a total of sixty (60) minutes.

b. All visible emissions inspections shall be performed when the Lycra® production facility is operating. In the event of a process shutdown for a consecutive period of one week or more, visible inspections may be discontinued until the process becomes operational.

c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

d. All observations, VEE results, process shutdowns and corrective actions taken shall be recorded.

(9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

1. The annual hours of operation of Lycra® (Classic and NAX), calculated monthly as the sum of each consecutive 12-month period.

2. Results of quarterly performance tests as required in Condition V.D.2.

3. Annual VOC emissions (in tons) from Lycra® (Classic and NAX), calculated monthly as the sum of each consecutive 12-month period, using emission factors and calculation methods approved by the Director, Valley Region.

4. A log of weekly inspections and the results of all VEEs performed on the Lycra® production facility exhausts as required in Condition V.B.3.

5. A log of daily inspections of each brine-cooled condenser as required in Condition V.B.2.

6. Results of all stack tests and visible emission evaluations.

7. Manufacturer's recommendations for control device operation.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 6 of 11/29/01 Permit as amended 07/25/05)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 4 of the 11/29/01 Permit as amended 07/25/05)

2. The permittee shall conduct quarterly performance tests for VOC in accordance with NIOSH Method 2004 or INVISTA Lab Procedure SP-0905.211-01 to demonstrate compliance with the emission limits contained in Condition V.A.2. The tests shall be submitted in accordance the schedule in Condition V.E.1. The details of the tests are to be arranged with the Director, Valley Region.
(9 VAC 5-80-110 and Condition 7 of the 11/29/01 Permit as amended 07/25/05)

3. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

E. Reporting and Notifications

1. The permittee shall submit quarterly performance tests for VOC as required by Condition V.D.2 to the Director, Valley Region, in accordance with the following schedule:

Time Period Covered by Report	Report Due Date
January 1 - March 31	June 1
April 1 - June 30	September 1
July 1 - September 30	December 1
October 1 - December 31	March 1

(9 VAC 5-80-110 and Condition 7 of the 11/29/01 Permit as amended 07/25/05)

VI. Nylon Fiber Production Facility

The following requirements are derived from the minor NSR permit dated 11/29/01 as amended 07/25/05. As used in Section VI, "Nylon fiber production facility" includes all emission units indicated in Section II of this permit under the Nylon fiber production facility heading.

A. Limitations

1. Particulate emissions from the bulking chests shall be controlled by using low-smoke finish.
(9 VAC 5-80-110 and Condition 9 of 11/29/01 Permit as amended 07/25/05)

2. VOC emissions from the Nylon fiber production facility shall be controlled by the primary salt reactor scrubber. The scrubber shall be provided with adequate access for inspection and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110)

3. The total polymer supply pump rate (Ref. NP-36, NP-32, NP-52, NP-57, NP-80, NP-136, NP-102 and NP-139) shall not exceed 132.7 revolutions per minute (rpm).
(9 VAC 5-80-110 and Condition 13 of 11/29/01 Permit as amended 07/25/05)

4. Emissions from the Nylon fiber production facility shall not exceed the limits specified below:

Particulate Matter	8.6 lbs/hr	37.7 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 14 of 11/29/01 Permit as amended 07/25/05)

5. Visible emissions from each of the Nylon equipment exhausts (Stack Ref. 5-25 through 5-30 and 5-32 through 5-42) shall not exceed 10 percent opacity.
(9 VAC 5-80-110, 9 VAC 5-40-80, 9 VAC 5-50-80 and Condition 15 of 11/29/01 Permit as amended 07/25/05)

6. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 38 of 11/29/01 Permit as amended 07/25/05)

7. A change to the polymer supply pumps or polymer supply pump system may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 12 of 11/29/01 Permit as amended 07/25/05)

B. Monitoring

1. The permittee shall continuously monitor and record the total supply rate for the polymer supply pumps (Ref. NP-36, NP-32, NP-52, NP-57, NP-80, NP-136, NP-102 and NP-139) in revolutions per minute (rpm).
(9 VAC 5-80-110 and Condition 17 of the 11/29/01 Permit as amended 07/25/05)

2. The primary salt reactor scrubber shall be equipped with a device to continuously measure the scrubber liquid flow rate. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the scrubber is operating.
(9 VAC 5-80-110)

3. The permittee shall conduct a weekly inspection of the maximum total supply rate for the polymer supply pumps (Ref. NP-36, NP-32, NP-52, NP-57, NP-80, NP-136, NP-102 and NP-139) in revolutions per minute (rpm). The inspection shall include the following:

a. The date, time and name of the person performing each inspection;

b. The results of each inspection, including an observation of the maximum total supply rate for the polymer supply pumps (Ref. NP-36, NP-32, NP-52, NP-57, NP-80, NP-136, NP-102 and NP-139) in revolutions per minute (rpm); and

c. The maintenance performed, if required.

If during the inspection, the total supply rate for the polymer supply pumps (Ref. NP-36, NP-32, NP-52, NP-57, NP-80, NP-136, NP-102 and NP-139) in revolutions per minute (rpm) is greater than 132.7 rpm, timely corrective action shall be taken such that the polymer supply pumps resume proper operation.
(9 VAC 5-80-110)

4. The permittee shall conduct a daily inspection of the primary salt reactor scrubber. The inspection shall include the following:

   a. The date, time and name of the person performing each inspection;

   b. The results of each inspection, including an observation of the scrubber liquid flow rate; and

   c. The maintenance performed, if required.

   If during the inspection, the scrubber liquid flow rate is not within the manufacturer's recommendations, timely corrective action shall be taken such that the scrubber resumes proper operation.
   (9 VAC 5-80-110)

5. The permittee shall conduct visible emissions inspections on Nylon fiber production facility exhausts 1-5, 1-6, 1-20, 1-25 through 1-27, 5-25 through 5-30, and 5-32 through 5-42 in accordance with the following procedures and frequencies:

   a. At a minimum of once per week, the permittee shall determine the presence of visible emissions. If during the inspection visible emissions are observed from a stack(s), a visible emissions evaluation (VEE) shall be conducted for the stack(s) in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed ten percent (10%), the VEE shall be conducted for a total of sixty (60) minutes.

   b. All visible emissions inspections shall be performed when the Nylon fiber production facility is operating. In the event of a process shutdown for a consecutive period of one week or more, visible inspections may be discontinued until the process becomes operational.

   c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

   d. All observations, VEE results, process shutdowns and corrective actions taken shall be recorded.

   (9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

1. The maximum total polymer supply pump rate in revolutions per minute (rpm), recorded weekly.

2. The annual hours of operation of the Nylon fiber production facility, calculated monthly as the sum of each consecutive 12-month period.

3. Average hourly particulate matter emissions (in pounds) from the Nylon fiber production facility, calculated as a monthly average, using emission factors and calculation methods approved by the Director, Valley Region.

4. Annual particulate matter emissions (in tons) from the Nylon fiber production facility, calculated monthly as the sum of each consecutive 12-month period, using emission factors and calculation methods approved by the Director, Valley Region.

5. A log of weekly inspections and the results of all VEEs performed on the Nylon fiber production facility exhausts as required in Conditions VI.B.5.

6. A log of weekly inspections performed on the polymer supply pumps (Ref. NP-36, NP-32, NP-52, NP-57, NP-80, NP-136, NP-102 and NP-139) as required in Condition VI.B.3.

7. A log of daily inspections performed on the scrubber as required in Condition VI.B.4.

8. Results of all stack tests and visible emission evaluations.

9. Manufacturer's recommendations for control device operation.

10. Copies of all low-smoke finish Material Safety Data Sheets (MSDS).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 16 of 11/29/01 Permit as amended 07/25/05)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30**,** 9 VAC 5-80-110 and Condition 11 of the 11/29/01 Permit as amended 07/25/05)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

VII. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
CP FLAKER Process 1	Cupric Bromide Dilution Mix Tank (1996)	9 VAC 5-80-720 B	PM, PM-10	
CP FLAKER Process 2	Cupric Bromide Storage Tank (1996)	9 VAC 5-80-720 B	PM, PM-10	
CP FLAKER Process 3	Pelletizer (1996)	9 VAC 5-80-720 B	PM, PM-10	
CP FLAKER Process 4	Cutter (1996)	9 VAC 5-80-720 B	PM, PM-10	
CP FLAKER Process 5	Dryer/Classifier (1996)	9 VAC 5-80-720 B	PM, PM-10	
CP FLAKER Process 6	Dense Phase Pneumatic Conveying System (1996)	9 VAC 5-80-720 B	PM, PM-10	
CP FLAKER Process 7	Nylon Flake Storage Bins (1996)	9 VAC 5-80-720 B	PM, PM-10	
534A	#6 Fuel Oil	9 VAC 5-80-720 B	VOC, HAPs	
534B	#6 Fuel Oil	9 VAC 5-80-720 B	VOC, HAPs	
534C	Diesel Fuel	9 VAC 5-80-720 B	VOC, HAPs	
604A	#2 Fuel Oil	9 VAC 5-80-720 B	VOC, HAPs	
617A	Diesel Fuel	9 VAC 5-80-720 B	VOC, HAPs	
617B	Diesel Fuel	9 VAC 5-80-720 B	VOC, HAPs	
607	#6 Fuel Oil	9 VAC 5-80-720 B	VOC, HAPs	
801	#6 Fuel Oil	9 VAC 5-80-720 B	VOC, HAPs	
N/A	Nylon Salt & CP Tanks	9 VAC 5-80-720 B	VOC	
35	Nylon Finish Prep. Additives	9 VAC 5-80-720 B	VOC	
N/A	Remaining Finish Prep. Additives Tanks	9 VAC 5-80-720 B	VOC	
53	Nylon Finish Prep.	9 VAC 5-80-720 B	VOC	
N/A	Remaining Finish Prep. Tanks	9 VAC 5-80-720 B	VOC	
N/A	Nylon Finish Prep. R/O Tanks	9 VAC 5-80-720 B	VOC	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
N/A	Nylon Ti02 Tanks	9 VAC 5-80-720 B	PM, PM-10	
14	Storage Tank (Back-up)	9 VAC 5-80-720 B	VOC	
SN 36885	Condensate Collection Tank	9 VAC 5-80-720 B	VOC	
15	DMAC Over Flow Tank	9 VAC 5-80-720 B	VOC	
48-196-2	Filtrate Storage Tank	9 VAC 5-80-720 B	VOC	
17	Storage Tank #5	9 VAC 5-80-720 B	VOC	
T-20-78-2	Storage Tank #3	9 VAC 5-80-720 B	VOC	
18	Storage Tank #2	9 VAC 5-80-720 B	VOC	
19	Storage Tank #1	9 VAC 5-80-720 B	VOC	
T-76-35-4	Storage Tank #4	9 VAC 5-80-720 B	VOC	
20	Storage Tank	9 VAC 5-80-720 B	VOC	
	Permasep Out-of-Service/Water Tanks	9 VAC 5-80-720 B	VOC	
L1	North Storage Tank	9 VAC 5-80-720 B	VOC	
L2	Supply Tank	9 VAC 5-80-720 B	VOC	
L3	Storage Tank	9 VAC 5-80-720 B	VOC	
L4	Storage Tank	9 VAC 5-80-720 B	VOC	
L5	Supply Tank	9 VAC 5-80-720 B	VOC	
L6	Supply Tank	9 VAC 5-80-720 B	VOC	
L7	Supply Tank	9 VAC 5-80-720 B	VOC	
L8	North Side	9 VAC 5-80-720 B	VOC	
L9	Supply Tank	9 VAC 5-80-720 B	VOC	
96	Perclene Drum	9 VAC 5-80-720 B	VOC	
97	Caustic Feed Tank	9 VAC 5-80-720 B	VOC	
98	Caustic Feed Tank	9 VAC 5-80-720 B	VOC	
99	Column Product Surge Tank	9 VAC 5-80-720 B	VOC	
100	Column Product Surge Tank	9 VAC 5-80-720 B	VOC	
101	Column Vent Pot	9 VAC 5-80-720 B	VOC	
102	Column Vent Pot	9 VAC 5-80-720 B	VOC	
103	Column Vent Pot	9 VAC 5-80-720 B	VOC	
104	Reflux Surge Tank	9 VAC 5-80-720 B	VOC	
105	Reflux Surge Tank	9 VAC 5-80-720 B	VOC	
106	Segregation Tank	9 VAC 5-80-720 B	VOC	
107	WFE HB Product Surge Tank	9 VAC 5-80-720 B	VOC	
108	Analyzer Carrier Waste Tank	9 VAC 5-80-720 B	VOC	
109	Waste Tank	9 VAC 5-80-720 B	VOC	
110	Aqueous Waste Tank	9 VAC 5-80-720 B	VOC	
111	Reflux Surge Tank	9 VAC 5-80-720 B	VOC	
112	Product Surge Tank	9 VAC 5-80-720 B	VOC	
113	Feed Tank	9 VAC 5-80-720 B	VOC	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
114	Column Feed Tank	9 VAC 5-80-720 B	VOC	
115	Utility Tank	9 VAC 5-80-720 B	VOC	
116	Dehydration Feed Tank	9 VAC 5-80-720 B	VOC	
117	Dehydration Feed Tank	9 VAC 5-80-720 B	VOC	
118	Tank	9 VAC 5-80-720 B	VOC	
119	Tank	9 VAC 5-80-720 B	VOC	
120	Supply Tank	9 VAC 5-80-720 B	VOC	
121	Supply Tank	9 VAC 5-80-720 B	VOC	
122	Feed Tank	9 VAC 5-80-720 B	VOC	
123	Surge Tank	9 VAC 5-80-720 B	VOC	
124	Tank	9 VAC 5-80-720 B	VOC	
125	Tank	9 VAC 5-80-720 B	VOC	
126	Tank	9 VAC 5-80-720 B	VOC	
127	Solution Feed Tank	9 VAC 5-80-720 B	VOC	
128	Feed Tank	9 VAC 5-80-720 B	VOC	
129	Feed Tank	9 VAC 5-80-720 B	VOC	
618	Gasoline Storage Tank	9 VAC 5-80-720 B	VOC	6,000 gallon
604B	Diesel Fuel Storage Tank	9 VAC 5-80-720 B	VOC	6,000 gallon
ASH	Ash Handling	9 VAC 5-80-720 B	PM, PM-10, PM-2.5	-
CTS	Process Cooling Towers	9 VAC 5-80-720 B	PM, PM-10, PM-2.5	-
LABS	Benger Laboratory	9 VAC 5-80-720 B	VOC, HAPs	-
	Remaining Recovery Tank	9 VAC 5-80-720 B	VOC	
	Wastewater Treatment	9 VAC 5-80-720 B	VOC	
	Interior, Exterior Maintenance	9 VAC 5-80-720 B	VOC	
	Comfort Heating & Cooling	9 VAC 5-80-720 B	VOC	
	Laboratory Activities	9 VAC 5-80-720 B	VOC	
	Tank/Equipment Clean-Out	9 VAC 5-80-720 B	VOC	
	Spill Collection Tanks	9 VAC 5-80-720 B	VOC	
	Water-Based Parts Washer	9 VAC 5-80-720 B	VOC	
	Welding Activities	9 VAC 5-80-720 B	VOC	
	Parts Washers	9 VAC 5-80-720 B	VOC	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VIII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None Identified	-	-

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

IX. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

      (1) Exceedance of emissions limitations or operational restrictions;

      (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

      (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Valley Region, within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition IX.C.3 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours, notify the Director, Valley Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Valley Region.
(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Action for Cause

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
   (9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
   (9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described

in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

X. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

A. Limitations

Emissions from the Lycra® production facility shall not exceed the limits specified below:

Formaldehyde	1.2 lbs/hr	5.2 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 N, 9 VAC 5-80-300 and Condition 43 of 11/29/01 Permit as amended 07/25/05)

B. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

a. The annual hours of operation of the Lycra® production facility, calculated monthly as the sum of each consecutive 12-month period.

b. Average hourly formaldehyde emissions (in pounds) from Lycra® (Classic and NAX), calculated as a monthly average, using calculation methods approved by the Director, Valley Region.

c. Annual formaldehyde emissions (in tons) from Lycra® (Classic and NAX), calculated monthly as the sum of each consecutive 12-month period, using calculation methods approved by the Director, Valley Region.

d. Results of all stack tests and visible emission evaluations.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 N, 9 VAC 5-80-300 and Condition 44 of 11/29/01 Permit as amended 07/25/05)